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THE

PLOTTER

CLACKAMAS COMPUTER APPLIED
TRAINING SOCIETY
NEWS LETTER

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VOLUME 9   **   NUMBER 10

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OCTOBER 1991

CLACKAMAS
COMPUTER
APPLIED
TRAINING
SOCIETY

THE

PLOTTER

COMPUTING THE FUTURE--
IN CLACKAMAS COUNTY
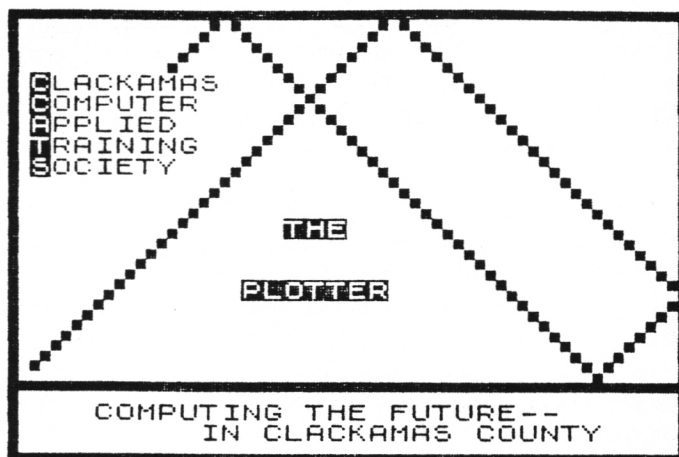

EDITED BY: DICK WAGNER
CHAIRMAN: JACK ARMSTRONG
V/CHAIRMAN: BILL DUNLOP
SECRETARY: DICK WAGNER
TREASURER: ROD GOWEN
PR OFFICER: BOB EVANS
LIBRARIANS: BILL DUNLOP
                  ALICE DUNLOP

MEETING

The OCTOBER meeting will be:

on: FRI., OCT 11, 1991

MEETING open at: 7:00 P.M.
in: COMMUNITY ROOM
    FAR WEST FEDERAL BANK
    OREGON CITY SHOPPING CENTER

WHAT YOU WILL FIND IN THIS ISSUE:

SEPTEMBER MINUTES

The Chairman called the meeting to order at 7:45 PM with 7 members present. There were no minutes for August as we did not have a business meeting.

The first item of business was Ed Fry reading several items from the September issue of The Hacker news letter. This generated discussion by all members present. The concensus seemed to be that we will continue the same philosophy of providing a substantial amount of our news letter space to the Timex-Sinclair line of computers besides providing some space for the IBM PC clones. This follows the concept of catering to equipment operated by many of our members besides subscribers to our news letter.

Merlin Raymond reported he was progressing on the construction of a new PC and he just might have it available to demonstrate at the next meeting.

Dick Wagner mentioned a program called "Magic Squares" he had copied from a book. This program is in Basic but requires some conversion to Sinclair Basic. He reported erratic behavior of the program and

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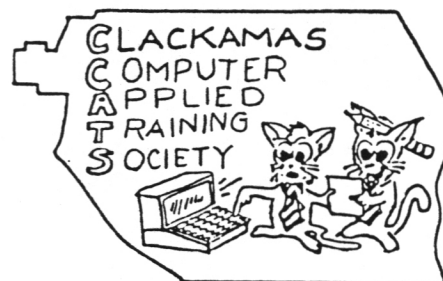
he had not solved the programming problem. The suggestion was made that he include it in our news letter and maybe some one will come up with a fix.

Under old business Libarian Bill Dunlop reported he had completed inventorying all of the user group newsletters he had received and the library was now current. However, he had just received another bundle from Rod Gowen so he was behind again.

Jack reported that he had looked into computer equipment being sold at Salvation Army stores for just a few dollars. He was curious about trying to adapt any of it to his own use. The recommendation was that he leave it alone.

Bill inquired about any member having a Spectrum manual. Dick reported that he had one and would bring it to the next meeting.

Rod showed the start of an inventory list of our news letters from user groups by volume, number, and date. This was printed by Bill. Rod suggested that we include a page or two in each or our monthly news letters. This would inform any of our readers that we had a particular issue of interest in our library and we could provide copies of articles and programs at cost on request. Over a period of time readers would have a complete record of our news letter library. This project will require considerable time and effort by members.

Rod also reported that our complete library of books, magazines and tapes was being stored by Galen Bench. The news letters are being stored at Rod's place.

Ed told about a robot arm he has been constructing. This is computer controlled, either T/S 1000 or IBM clone. He volunteered to bring it to the October meeting.

Bill was interested in expanding the main port on his 2068 computer as he has many devices now connected and he needed to re-arrange things. The several members thought he would have to devise his own mother board with more edge connectors to do what he wanted to do.

Rod brought up an idea he had that we could go through our news letters (The Plotter) since its inception and pick out original articles and programs to reprint as "The Best Of The Plotter". The idea would be to make a publication to sell. Hopefully, newer users of T/S equipment would find this of interest. This would require members, particularly those with complete sets, go though each issue and make a decission on articles and programs. More discussion will be required.

Rod also reported that member Bob Gerow's wife was to have a heart operation soon. He was commissioned to obtain a suitable card, sign it for the group, and send it to her.

For LKDOS users, Rod has a program from Sinc Link that alphabetically arranges a disk directory, this making it easier to a find a specific program.

The meeting was adjourned at 9:15 PM.

Dick Wagner
Secretary

BITS & BYTES
by: Rod Gowen

In this column I try to bring you the latest and complete information and news available to me regarding the world of TS computing. One way that I can accomplish this is if I have the support of you, the reader, in collecting news that may be of interest to other readers. If you have any news, rumors or other tidbits of information that fits this description, why not send it along? We will be watching!

NEWS IN SHORT SUPPLY !:
Sorry folks! It had to happen sooner or later. We are at a loss as to just what to talk about this month!

»»»

At least in the TS world. I know that there is news out there. I know that things are still happening in the wonderful world of the TS computers. Never fear, however, we will continue to bring you what we can each month! We will not give up until you do!

T/SNUG NEWS-

Nothing new to report on this front. We are expecting the 3rd newsletter to appear sometime in the next 6-8 weeks. We will let you know our thoughts on it when it arrives.

RMG NEWS:

RMG has finally received the Larken versions of the Zebra Designer Series as well as the Zebra Graphics Libraries on Larken disk. We thank Mountaineer Software for doing the conversions. We also have the Oliger versions available for those of you who would prefer that version. There is a multi-tiered pricing system in place on these so we do not have it all worked out just yet. We welcome a call or an SASA if you want more info on this. We will try to publish the prices here next month.

LIBRARY UPDATE:

Bill Dunlop, our Librarian, has delivered an updated copy of the library file disk at our last meeting. We are also planning to offer a "search" service for members who would like to find what data the library contains on any given subject. For information write or call.

NEW PROJECT:

A new group project was discussed at the September meeting. We are hoping to put together a "BEST OF THE PLOTTER" book to be offered to any and all interested parties. It will take a while to put together and we can use help from our members. Give us a call.

That's if for now!
See you next time. . .

MAGIC SQUARE
By Dick Wagner

This game, from the book, The Most Popular Subroutines In Basic by Ken Traction (TAB #1050), is written in ordinary BASIC such as Basica and GWBasic. I converted to Sinclair Basic to try it out on the 2068.

Note that the instructions may or may not be requested. Also, you can lose in just a few plays simply because the magic square cannot be completed due to either your play or the computer's play. That makes it tough to win. A completed square is considered a tie. You get a win when the computer is forced to create a wrong number (I wonder how?)!

The magic square is based on the following numbers and positions. These numbers will produce the sum of 15 across each row, down each column, and each diagonal.

```
8  1  6

3  5  7

4  9  2
```

The screen shows the game positions as

```
1  2  3

4  5  6

7  8  9
```

Thus you must have the correct numbers in all squares. Oddly, when the computer chooses square 1 with a 1, then each time the computer inputs a number, which seems to be consecutive (2, 3, etc) these numbers replace the 1 in position 1. However, once the computer is forced to some other position first, this does not occur. If you do take position 1 with 8, then you get a break in the program! Some thing wrong there.

Hopefully, a reader will come up with a correction as I have run out of time, getting this news letter out.

>> >>

```
10 PRINT "MAGIC SQUARES"
15 PRINT
20 PRINT "ARE INSTRUCIONS REQU
IRED (TYPE 1 FOR YES, 0 FOR NO)"
25 INPUT T: IF T=1 THEN GO TO
35
30 GO TO 60
35 PRINT "THE PURPOSE IS TO TR
Y TO CREATE A MAGIC SQUARE"
40 PRINT "A MAGIC SQUARE IS A
SQUARE ARRAYOF NUMBERS SUCH THAT
 IF YOU ADD UP THE DIAGONALS, RO
WS OR        COLUMNS YOU ARRIVE A
T THE SAME   SUM."
45 PRINT "THE COMPUTER IS TRYI
NG TO BLOCK YOU IN SUCH A FASHIO
N THAT YOU  WILL CREATE A ROW, C
OLUMN, OR   DIAGONAL THAT DOES N
OT ADD UP TO15 AS IS NECESSARY I
N THIS        COMBINATION OF NUMBE
RS."
50 PRINT "TO WIN YOU MUST FORC
E THE        COMPUTER TO CREATE A
 WRONG SUM!!"
55 PRINT "IF A MAGIC SQUARE IS
 CREATED IT IS A TIE GAME."
60 PRINT : PRINT "GOOD LUCK--T
YPE IN ANY NUMBER TOSTART": INPU
T T
65 PRINT
70 DIM A(9): DIM B(9)
75 PRINT : PRINT
80 PRINT "HERE ARE THE CELL NU
MBERS": PRINT
90 PRINT "1";"   ";"2";"   ";"3"
: PRINT
95 PRINT "4";"   ";"5";"   ";"6"
: PRINT
100 PRINT "7";"   ";"8";"   ";"9"
105 FOR I=1 TO 9
110 LET A(I)=0: LET B(I)=0
115 NEXT I
120 LET M=0: LET W=0
125 PRINT : INPUT "YOUR MOVE--C
ELL ";I;" AND NUMBER ";N
130 IF I<1 OR I>9 OR N<1 OR N>9
 THEN GO TO 140
135 IF A(I)=0 AND B(N)=0 THEN G
O TO 145
140 PRINT : PRINT "ILLEGAL MOVE
": GO TO 125
145 LET A(I)=N: LET B(N)=1: LET
 M=M+1
150 GO SUB 960
155 GO SUB 800
200 IF W=0 THEN GO TO 230
210 PRINT "SORRY, YOU LOSE--NIC
E TRY": GO TO 560
230 IF M<5 THEN GO TO 400
240 PRINT "TIE GAME!!": GO TO 5
60
400 FOR Q=1 TO 9
410 IF A(Q)>0 THEN GO TO 470
420 FOR R=1 TO 9
430 IF B(R)>0 THEN GO TO 470
435 LET A(Q)=R
440 GO SUB 800
450 IF W=0 THEN GO TO 500
460 LET Q1=Q: LET R1=R: LET W=0
: LET A(Q)=0
470 NEXT R
480 NEXT Q
490 LET W=1: LET R=R1: LET W=0:
LET A(Q)=0
500 LET B(R)=1
520 PRINT : PRINT "THE COMPUTER
MOVES TO CELL ";Q;
525 PRINT "WITH A   ";R
530 GO SUB 960
540 IF W=0 THEN GO TO 125
550 PRINT : PRINT "THE COMPUTER
 LOSES!!"
560 PRINT : PRINT "LETS TRY AGA
IN": GO TO 75
800 FOR X=1 TO 8
810 GO TO (X*10+810)
820 LET J=1: LET K=2: LET L=2:
GO TO 900
830 LET K=4: LET L=7: GO TO 900
840 LET K=5: LET L=9: GO TO 900
850 LET J=4: LET L=6: GO TO 900
860 LET J=2: LET L=8: GO TO 900
870 LET J=3: LET L=7: GO TO 900
880 LET K=6: LET L=9: GO TO 900
890 LET J=7: LET K=8: GO TO 900
900 IF A(J)=0 OR A(K)=0 OR A(L)
=0 THEN GO TO 930
920 IF A(J)+A(K)+A(L)<>15 THEN
GO TO 940
930 NEXT X
935 GO TO 950
940 LET W=1
950 RETURN
960 PRINT A(1);"   ";A(2);"   ";A
(3)
965 PRINT
970 PRINT A(4);"   ";A(5);"   ";A
(6)
975 PRINT
980 PRINT A(7);"   ";A(8);"   ";A
(9)
990 RETURN
```

the plotter
pc page
by: Rod Gowen

Summer's over and I would assume that more and more of you will be putting in more and more time on your computers. If this is the case, then some of you should be coming up with some ideas for this column. Maybe even an actual article or review to contribute? I could sure use the help! If you have some ideas, please let me know and I will do my best to get some info out for you on whatever subject you care to ask about.

4DOS UPDATE--We have just received our new version of 4DOS! The current version is 3.03 and version 4.0 is due out in about a month. If anyone out there would like a copy of V3.03 in the shareware version, it is now in our library. Both of these versions include instructions on how to use them with MS-DOS 5.0.

By the way, how many of you are using 4DOS? What do you think of it? Can any of you write a small review of the features that you use and like? If so, let me know at the address on the newsletter.

I would like to use this column as sort of a mini-instruction forum. That is to say, I would like you, the readers, to let me know what you need help with, what you are interested in learning about and letting me try to put forth some small amount of information on that subject each month. With all of the new MS-DOS users out there, I am almost certain that you cannot all be experts! I have been fooling around in MS-DOS for over 6 years and I am by no means even close to being an "expert". We all have more to learn. Every time I think I have mastered a subject or a program, someone puts out an updated version or I find a program of the same type that will serve me better! It seems like there is no way to win! Even the program that seems to be simple and straight-forward can have "hidden" features that may be useful.

What is needed to get this going is more input from you. I can express my own thoughts and views but would rather talk about what you want to hear about. Feel free to write or call if you have a question or need help with a program and I will do my best to do what I can.

KEEP WATCHIN' MORE TO COME NEXT TIME!

SEEN IN A LAKE CHELAN RESTAURANT:
"BEHIND EVERY SUCCESSFUL MAN
THERE IS AN UNBELIEVING
MOTHER-IN-LAW".

IBM/EPSON GRAPHIC SCREEN DUMP
By Dick Wagner

Print Screen key does not copy graphics on the Epson printer
unless the graphics are the usual IBM graphic symbols and the
printer has these same symbols. My Panasonic printer does not
provide double line graphic symbols so it will not faithfully copy
the screen.,

An alternative is is to use a program that will do this as a
screen copy in printer graphic mode. There is such a program in
the Tandy book, Graphics and Sound by William Barden, Jr. This
program prints sideways to produce a large image, starting at the
bottom left corner. The author has padded lines with empty lines
to produce an image of a full screen in about the same ratio as
the screen image. While it does produce a similar image it is
undesirable to have broken lines. There are ways around this if
you do not require a screen ratio ie. same ratio of width to
height.

Lines 10040 and 10170 can be changed as per your printer manual
for line spacing and line density. It requires some experimenting
to obtain the proper printer coding to get symetrical circles and
no spaces between pin prints. Note that PRINT #1 is used in place
of LPRINT. LPRINT could be subject to formatting by MS DOS.

Note that the program provides for 80 lines down the page
corresponding to screen columns. An 8 pin character is printed
each time in contrast to some programs that print a single pin for
each stroke.

```
100 ' DRAW TEST DATA AND CALL SUBROUTINE FOR IBM/EPSON PRINTERS
110 SCREEN 2: KEY OFF: CLS
120 CIRCLE (300,100),50: CIRCLE (20,20),10: CIRCLE (600,20),10
123 LINE (5,195)-(5,190): LINE (0,195)-(10,195)
125 LINE (0,0)-(639,0): LINE -(639,199): LINE -(0,199): LINE -(0,0)
130 GOSUB 10000
140 GOTO 140
150 CLOSE #1
10000 ' SUBROUTINE TO DUMP GRAPHICS SCREEN TYPE 2 (640 X 200) MONO
10010 DEF SEG=&HB800                         'print to graphics screen
10020 OPEN "lpt1:" AS #1                     'open printer
10030 WIDTH  "lpt1:",255                     'inhibit auto new line
10040 PRINT #1,CHR$(27);"1";            'set 7/72 inch line spacing
10050 FOR BYTENO=0 TO 79                 '80 bytes = 640 points
10060 START=80*199+192+BYTENO            'bottom left corner
10070 PRINT#1,CHR$(13);CHR$(10);         'carriage return, line feed
10080 BYTES=START                        'initialize working pointer
10090 GOSUB 10160                        'start line
10100 GOSUB 10190                        'print dot column
10110 IF BYTES>=0 AND BYTES<80 THEN 10140  'test for last dot col
10120 IF BYTES <8000 THEN BYTES=BYTES+8112 ELSE BYTES=BYTES-8192
10130 GOTO 10100                         'loop
10140 NEXT BYTENO                        'next 8 points
10150 RETURN                             'return from subroutine
10160 'SUBROUTINE TO START GRAPHICS LINE
10170 PRINT #1,CHR$(27);"K";CHR$(144);CHR$(1);    '400 dot column
10180 RETURN
10190 'SUBROUTINE TO PRINT ONE DOT COLUMN
10200 PRINT#1,CHR$(PEEK(BYTES));CHR$(0);
10210 RETURN
```

COMBAT!

This TS 1000 game requires the input of 20 numbers ranging from 1 to 10. The input is rather slow so give the counter time to act. In the graphics the M may be a problem to decipher. All of the letters are 5 characters high by 3 characteers wide except the M which is 5 characters wide. To help out, the first row of M is Graphic Space, G W, Sp G Q, G Sp, and the second row is G Sp G 2, G Sp, G 1, G Sp.

For the tank, the gun barrel is 4 characters long and the turret is 3 characters long. Line 300 can be used as guide for locating the graphic characters. Some of the graphic characters did not print properly. All of the tank is solid black except between the 2 wheels which is graphic shifted G.

```
   10 REM "COMBAT" BY JACK ARMSTR
ONG
   15 REM MARCH 1983 "THE PLOTTER
"
   18 REM ENTER 20 NUMBERS BETWEE
N 1 AND 10
   20 LET SCORE=0
   30 FOR J=1 TO 20
   35 GOSUB 1000
   40 PRINT AT 0,0;"ENTER A NUMBE
R FROM 1 TO 10";AT 1,8;"GO NUMBE
R ";J
   50 INPUT A
   60 IF A<1 OR A>10 THEN GOTO 50
   70 PRINT AT 10,0;"YOUR NUMBER
IS ";A;AT 12,6;"SCORE IS ";SCORE
   80 FOR G=1 TO 4
   90 LET B=INT (RND‡10)+1
  100 PRINT AT 3,3;B;"  "
  110 IF B=A THEN GOTO 130
  120 NEXT G
  130 IF A=B THEN LET SCORE=SCORE
+1
  140 IF A=B THEN PRINT AT 14,6;"
WELL DONE"
  150 IF A<>B THEN PRINT AT 14,8;
"BAD LUCK"
  160 PRINT AT 12,6;"SCORE IS ";S
CORE
  170 IF SCORE=5 THEN GOTO 260
  180 FOR T=1 TO 20
  190 NEXT T
  200 CLS
  210 NEXT J
  220 PRINT "THE GAME IS OVER AND
YOU ONLY";
  230 PRINT "SCORED ";SCORE
  240 PRINT "YOUR RATING IS ";SCO
RE/.05;" PERCENT"
  250 GOTO 290
  260 SCROLL
  280 PRINT "YOU WIN"
  290 SCROLL
  300 PRINT "ANOTHER TRY? PRESS "
"RUN"" ""ENTER"""
  310 STOP
```

```
1000 LET A$="                    "
1010 LET B$="                    "
1020 PRINT AT 4,2;B$
1025 PRINT AT 12,9;A$
1030 RETURN
```

TS 1000 PLOT

This program is from the 12/83 issue of THE PLOTTER. It was a study of some of the commands provided in the manual. The action of having PRINT follow PLOT is unusual (the 2068 wont).

The program was revised slightly with the text wording and adding SLOW. The text can be graphic characters and may add a step appearance better than words. The PLOT character bounces up and down the stairs. The TS 1000 uses a character making up 1/4 of a square. Thus in a 45 degree plot, alternate corners of a character position are printed.

Why not get out the old TS 1000 and play with this program.

```
    1 REM PROGRAM WITH REVISIONS
FROM THE PLOTTER, DECEMBER 1983
    2 REM SEE TIMEX USER MANUAL P
AGE 65 ABOUT PLOT MOVES THE PRIN
T POSITION.
    3 REM USE RUN TO START THE AC
TION.
    4 REM USE BREAK TO STOP ACTIO
N
   10 FOR N=1 TO 43
   15 SLOW
   20 PLOT N,N
   30 PRINT "MERRY XMAS"
   40 UNPLOT N,N
   50 NEXT N
   60 FOR X=43 TO 1 STEP -1
   70 PLOT X,X
   80 UNPLOT X,X
   90 NEXT X
  100 GOTO 10
```

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```
  1 REM "CHASE"
  5 SLOW
 10 CLS
 15 LET N=0
 20 LET A=15
 25 LET B=16
 30 LET S=0
 35 LET C=INT (RND*30)+1
 40 LET D=INT (RND*20)+1
 45 LET B$=INKEY$
 50 PRINT AT A,B;CHR$ 133
 55 PRINT AT D,C;CHR$ 6
 60 LET N=N+1
 65 IF N=500 THEN GOTO 200
 70 PRINT AT A,B;"  "
 75 IF B$="5" THEN LET B=B-1
 80 IF B$="8" THEN LET B=B+1
 85 IF B$="6" THEN LET A=A+1
 90 IF B$="7" THEN LET A=A-1
 95 IF B$="0" AND A=D AND B=C T
HEN GOTO 500
 97 IF B$="0" THEN PRINT AT D,C
;"X"
100 PRINT AT D,C;"  "
105 IF C=30 THEN GOTO 35
110 LET C=C+1
115 GOTO 45
200 PRINT AT 10,14;"SCORE IS= "
;S
210 STOP
500 LET S=S+1
510 PRINT AT D,C;"X"
520 PRINT AT D,C;" "
530 GOTO 35
```

PROGRAM FROM V 2, N 5 BY TAD HEN
DRICKSON

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CCATS
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